55. (Once Amended) The semiconductor laser diode module according to Claim 54, wherein said base projects in a longitudinal direction of said optical fiber from an end portion on an optical fiber mounting side of said thermo module.

REMARKS

Favorable reconsideration of this application as presently amended and in light of the following discussion is respectfully requested.

Claims 1-17 and 19-61 are presently active in this case, Claims 1, 46, 52, 53, and 55 having been amended and Claim 18 having been canceled by way of the present Amendment.

In the outstanding Official Action, Claim 1-61 were provisionally rejected under 35 U.S.C. 101 as claiming the same invention as that of Claims 1-62 of copending Application Ser. No. 09/867,449. The double patenting rejection is currently provisional, since no allowed subject matter has been identified. The Applicants note that the independent claims of the present application and the copending application differ in scope, and therefore do not claim the same invention. The Applicants will address this issue further once the rejection is no longer provisional upon the indication of allowable subject matter.

Claims 1-4, 9-14, 16, 18-22, 27-32, 34, 36-40, 45, 47-49, 55, 56, and 58 were rejected under 35 U.S.C. 102(b) as being anticipated by Janssen et al. (U.S. Patent No. 5,570,444). Claims 5, 23, 41, and 50 were rejected under 35 U.S.C. 103(a) as being unpatentable over Janssen et al. in view of Miki et al. (U.S. Patent No. 6,094,515). Claims 6-8, 17, 24-26, 35, 42-44, 51-54, 60, and 61 were rejected under 35 U.S.C. 103(a) as being unpatentable over Janssen et al. (U.S. Patent No. 5,570,444) in view of Yoshino (U.S. Patent No. 5,924,290). Claims 15, 33, 46, 57, and 59 were rejected under 35 U.S.C. 103(a) as being unpatentable

over Janssen et al. For the reasons discussed below, the Applicant traverses the obviousness rejection.

The basic requirements for establishing a *prima facie* case of obviousness as set forth in MPEP 2143 include (1) there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings, (2) there must be a reasonable expectation of success, and (3) the reference (or references when combined) must teach or suggest all of the claim limitations.

The Applicant submits that a *prima facie* case of obviousness has not been established in the present case because the references, either singularly or in combination, do not teach or suggest all of the claim limitations, and there is no suggestion or motivation to modify the references.

Claim 1 of the present application advantageously recites a laser diode module comprising a laser diode, an optical system including an optical fiber and a lens portion, a holder configured to receive a portion of the optical system, a base having a holder mounting member and a fastening member, and a bottom plate. The holder is mounted to the fastening member at a first joint position, and the fastening member is mounted to the holder mounting member at a second joint position. The first joint position and the second joint position are located at substantially a same distance from the bottom plate, and the first joint position and the second joint position are coplanar along a plane extending through a longitudinal axis of the optical fiber.

The Applicants respectfully submit that the Janssen et al. reference does not disclose or suggest the first and second joint positions as expressly recited in Claim 1. The Janssen et al. reference describes blocks (9) mounted on a substrate (2). The blocks (9) are welded to

slide members (8) by laser beam welds (11). A slide member (8) is provided on each side of a slotted rod (6), which receives an optical fiber (4). The slide members (8) are each welded to the slotted rod (6) by a single laser beam weld (12). The Official Action indicates that the welds (11 and 12) are all formed a same distance from the substrate (2). However, the Applicants respectfully submit that the welds (11 and 12) are not coplanar along a plane that extends through a longitudinal axis of optical fiber (4).

Claim 1 defines a first joint position and a second joint position that are coplanar along a plane extending through a longitudinal axis of an optical fiber. The Janssen et al. reference depicts a configuration in which the laser beam welds (11 and 12) are formed at the top edge of slide members (8) and blocks (9). The Applicants respectfully submit that a review of Figure 1 clearly indicates that the plane that is common to both top surfaces of slide members (8) is above the optical fiber (4), and therefore is well above the longitudinal axis of the optical fiber (4). This can be clearly seen if a line is drawn between the top surfaces of the two slide blocks (8), in which case the optical fiber (4) is below the line. As is evident from the figures, the laser beam welds (11 and 12) are formed at a vertical location above the axis of the optical fiber (4). Accordingly, the Janssen et al. reference does not anticipate Claim 1, which recites a first joint position and a second joint position that are coplanar along a plane extending through a longitudinal axis of an optical fiber. While the laser beam welds (11 and 12) of the Janssen et al. reference may be coplanar, that plane does not extend through a longitudinal axis of the optical fiber (4).

Accordingly, the Applicants respectfully request the withdrawal of the anticipation rejection of Claim 1.

Claims 2-17 are considered allowable for the reasons advanced for Claim 1 from which they depend. These claims are further considered allowable as they recite other

features of the invention that are neither disclosed, taught, nor suggested by the applied references when those features are considered within the context of Claim 1.

Claim 19 of the present application advantageously recites a laser diode module comprising a laser diode having an active layer, an optical system including an optical fiber and a lens portion, a holder configured to receive a portion of the optical system, and a base having a holder mounting member and a fastening member. The holder is mounted to the fastening member at a first joint position, and the fastening member is mounted to the holder mounting member at a second joint position, where the first joint position and the second joint position are coplanar with the active layer of the diode.

The Applicants respectfully submit that the Janssen et al. reference does not disclose or suggest the first and second joint positions as expressly recited in Claim 19. The Official Action indicates that the welds (11 and 12) are all formed a same distance from the substrate (2). However, the Applicants respectfully submit that the welds (11 and 12) are not coplanar with an active layer of a diode. Claim 19 defines a first joint position and a second joint position that are coplanar with an active layer of a diode. The Janssen et al. reference depicts a configuration in which the laser beam welds (11 and 12) are formed at the top edge of slide members (8) and blocks (9). As discussed above with respect to Claim 1, the Applicants respectfully submit that a review of Figure 1 clearly indicates that the plane that is common to both top surfaces of slide members (8) is above the optical fiber (4). While the Janssen et al. reference does not specifically discuss the vertical location of an active layer of a diode, the Janssen et al. reference that the laser emission is to be coupled into a single mode optical fiber (4). Accordingly, the Applicants submit that the active layer of the laser would not be above the optical fiber (4), and therefore is not coplanar with the laser beam welds (11 and 12), which are in a plane that is above the optical fiber (4). Accordingly, the Janssen et al.

reference does not anticipate Claim 19, which recites a first joint position and a second joint position that are coplanar with an active layer of a diode.

Accordingly, the Applicants respectfully request the withdrawal of the anticipation rejection of Claim 19.

Claims 20-36 are considered allowable for the reasons advanced for Claim 19 from which they depend. These claims are further considered allowable as they recite other features of the invention that are neither disclosed, taught, nor suggested by the applied references when those features are considered within the context of Claim 19.

Claim 37 of the present application advantageously recites a laser diode module comprising a laser diode, an optical system including an optical fiber and a lens portion, a holder configured to receive a portion of the optical system, and a base having a holder mounting member and a fastening member. The holder is mounted to the fastening member at a plurality of first joint positions, and the fastening member is mounted to the holder mounting member at a plurality of second joint positions, where the plurality of first joint positions and the plurality of second joint positions are coplanar.

The Applicants respectfully submit that the Janssen et al. reference does not disclose or suggest a plurality of first joint positions as expressly recited in Claim 37. The Official Action cites the slotted rod (6) as the holder and slide members (8) as the fastening member. Individual slide members (8)(note that the slide members are two separate structures) are provided on each side of a slotted rod (6), which receives an optical fiber (4). The slide members (8) are each welded to the slotted rod (6) by a single laser beam weld (12). The Janssen et al. reference expressly teaches that only a single weld (12) is to be used in order to minimize the transverse displacement of the rod during the making of the weld (12). (See column 4, lines 8-13.)

Accordingly, the Janssen et al. reference not only does not disclose a plurality of first joint positions mounting a holder configured to receive a portion of the optical system to a fastening member, but the Janssen et al. reference also teaches away from such a configuration. Accordingly, the Applicants respectfully request the withdrawal of the anticipation rejection of Claim 37.

Claims 38-45 are considered allowable for the reasons advanced for Claim 37 from which they depend. These claims are further considered allowable as they recite other features of the invention that are neither disclosed, taught, nor suggested by the applied references when those features are considered within the context of Claim 37.

Claim 46 of the present application advantageously recites a semiconductor laser diode module comprising a laser diode, an optical system including an optical fiber and a lens portion, a holder configured to receive a portion of the optical system, a fastening means for fixing the portion of the optical system by supporting and clamping the holder on sides thereof, a base configured to support the fastening means and the laser diode, and a bottom plate configured to support the base, the fastening means, the holder, the optical system, and the laser diode. The base includes a fastening means mounting member configured to mount the fastening means. A first welding position is obtained by welding the fastening means to the fastening means mounting member, a second welding position is obtained by welding the fastening means and the holder, and a third welding position is obtained by welding the fastening means and the holder. The first welding position, the second welding position, and the third welding position are at substantially a same height in a direction perpendicular to the bottom plate.

The Applicants respectfully submit that the Janssen et al. reference does not disclose or suggest plural welding positions between a holder and fastening means as expressly recited

in Claim 46. The Official Action cites the slotted rod (6) as the holder and slide members (8) as the fastening means. As discussed above with regard to Claim 37, the slide members (8) are each welded to the slotted rod (6) by a single laser beam weld (12). The Janssen et al. reference expressly teaches that only a single weld (12) is to be used in order to minimize the transverse displacement of the rod during the making of the weld (12). (See column 4, lines 8-13.)

Accordingly, the Janssen et al. reference not only does not disclose plural welding positions between a holder and fastening means, but the Janssen et al. reference also teaches away from such a configuration. The Applicants respectfully submits that the rejection is based on the improper application of hindsight considerations. It is well settled that it is impermissible simply to engage in hindsight reconstruction of the claimed invention, using Applicants' structure as a template and selecting elements from the references to fill in the gaps. *In re Gorman*, 933 F.2d 982, 18 USPQ2d 1885 (Fed. Cir. 1991). Recognizing, after the fact, that a modification of the prior art would provide an improvement or advantage, without suggestion thereof by the prior art, rather than dictating a conclusion of obviousness, is an indication of improper application of hindsight considerations. Simplicity and hindsight are not proper criteria for resolving obviousness. *In re Warner*, 397 F.2d 1011, 154 USPQ 173 (CCPA 1967).

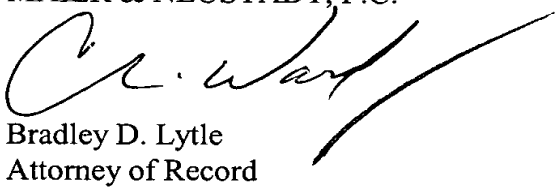
Accordingly, the Applicants respectfully request the withdrawal of the obviousness rejection of Claim 46.

Claims 47-61 are considered allowable for the reasons advanced for Claim 46 from which they depend. These claims are further considered allowable as they recite other features of the invention that are neither disclosed, taught, nor suggested by the applied references when those features are considered within the context of Claim 46.

Consequently, in view of the above discussion, it is respectfully submitted that the present application is in condition for formal allowance and an early and favorable reconsideration of this application is therefore requested.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,
MAIER & NEUSTADT, P.C.



Bradley D. Lytle
Attorney of Record
Registration No. 40,073

Christopher D. Ward
Registration No. 41,367

22850
Tel. (703) 413-3000
Fax. (703) 413-2220
(OSMMN 10/00)

BDL/CDW/brf
I:\atty\cdw\205473US8\am1.wpd

Marked-Up Copy
Serial No.: 09/867,549
Amendment Filed on: November 8, 2002

IN THE CLAIMS

1. (Once Amended) A laser diode module comprising:

a laser diode;

an optical system including an optical fiber and a lens portion, said optical system being configured to receive and transmit a beam emitted from said laser diode through said lens portion to said optical fiber along an optical axis;

a holder configured to receive a portion of said optical system;

a base having a holder mounting member and a fastening member, said holder being mounted to said fastening member at a first joint position, said fastening member being mounted to said holder mounting member at a second joint position; and

a bottom plate configured to support said base,

wherein said first joint position and said second joint position are located at substantially a same distance from said bottom plate, and wherein said first joint position and said second joint position are coplanar along a plane extending through a longitudinal axis of said optical fiber.

18. (Cancel)

46. (Once Amended) A semiconductor laser diode module comprising:

a laser diode;

an optical system including an optical fiber and a lens portion, said optical system being configured to receive and transmit a beam emitted from said laser diode through said lens portion to said optical fiber along an optical axis;

a holder configured to receive a portion of said optical system;

a fastening means for fixing said portion of said optical system by supporting and clamping said holder on sides thereof;

a base configured to support said fastening means and said laser diode, said base including a fastening means mounting member configured to mount said fastening means; and

a bottom plate configured to support said base, said fastening means, said holder, said optical system, and said laser diode,

wherein a first welding position is obtained by welding said fastening means to said fastening means mounting member, [and] a second welding position is obtained by welding said fastening means and said holder, and a third welding position is obtained by welding said fastening means and said holder, and

wherein said first welding position, [and] said second welding position, and said third welding position are at substantially a same height in a direction perpendicular to said bottom plate.

52. (Once Amended) The semiconductor laser diode module according to Claim 51, wherein:

said optical isolator is mounted to said fastening means mounting member at a [third] fourth welding position; and

said first welding position, said second welding position, [and] said third welding position, and said fourth welding position are at substantially a same height in a direction perpendicular to said bottom plate.

53. (Once Amended) The semiconductor laser diode module according to Claim 52, wherein:

said optical isolator is mounted to said fastening means mounting member at a [fourth] fifth welding position, said [third] fourth welding position being located on a first surface of said optical isolator and said [fourth] fifth welding position being located on a second surface of said optical isolator, said first surface being substantially perpendicular in orientation to said second surface; and

said first welding position, said second welding position, said third welding position, [and] said fourth welding position, and said fifth welding position are at substantially a same height in a direction perpendicular to said bottom plate.

55. (Once Amended) The semiconductor laser diode module according to Claim [46] 54, wherein said base projects in a longitudinal direction of said optical fiber from an end portion on an optical fiber mounting side of said thermo module.